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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/762,778	04/20/2001	Anton Blaakmeer	702-010062	7921

7590

04/24/2003

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EXAMINER

NGUYEN, SON T

ART UNIT      PAPER NUMBER

3643

DATE MAILED: 04/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/762,778

Applicant(s)

BLAAKMEER ET AL.

Examiner

Son T. Nguyen

Art Unit

3643

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 20 April 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 12-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 12-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 April 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 7.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 12-19,21,22,24-26** are rejected under 35 U.S.C. 103(a) as being unpatentable over Baron et al. (US 5081791).

For claim 12, Baron et al. disclose a plant substrate comprising mineral wool (col. 3, line 9) and an ion-exchange agent (col. 3, lines 4-10). However, Baron et al. are silent about the agent being up to 20 % volume with a capacity of at least about 15 meq/100g dry weight. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the agent of Baron et al. being up to 20 % volume with a capacity of at least about 15 meq/100g dry weight, since it has been held that where routine testing and general experimental conditions are present, discovering the optimum or workable ranges until the desired effect (for example, to make it more potent) is achieved involves only routine skill in the art. In re Aller, 105 USPQ 233.

For claims 13 & 14, Baron et al. disclose soil minerals (col. 3, lines 5-9) which is a cation exchange agent as discussed by applicants, page 3, line 10.

For claim 15, since these soil minerals as described by Baron in col. 3, lines 5-9 (omitting the clay), are similar to that claimed by applicants, the soil minerals of Baron et

Art Unit: 3643

al. should display same characteristic as that of applicants, i.e. having a non-clay like behavior with respect to swelling and shrinkage.

For claim 16, Baron et al. are silent about pore sizes. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the ion exchange agent of Baron et al. with pore size that is smaller than that of the mineral wool having a density of less than about  $72 \text{ kg/m}^3$ , since it has been held that where routine testing and general experimental conditions are present, discovering the optimum or workable ranges until the desired effect is achieved involves only routine skill in the art. In re Aller, 105 USPQ 233.

For claim 17, Baron et al. disclose zeolite (col. 3, line 7).

For claim 18, Baron et al. disclose an organic substance (col. 3, lines 5-9). However, they are silent about the substance substituting up to 20% volume. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the organic substance of Baron et al. substituting the mineral wool up to 20% volume, since it has been held that where routine testing and general experimental conditions are present, discovering the optimum or workable ranges until the desired effect is achieved involves only routine skill in the art. In re Aller, 105 USPQ 233.

For claim 19, Baron et al. disclose clay (col. 3, line 7). However, they are silent about the clay substituting up to 20% volume. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the clay of Baron et al. substituting the mineral wool up to 20% volume, since it has been held that where routine testing and general experimental conditions are present, discovering the

Art Unit: 3643

optimum or workable ranges until the desired effect is achieved involves only routine skill in the art. In re Aller, 105 USPQ 233.

For claim 21, Baron et al. disclose a growing mat with the substrate as described. See figures.

For claim 22, see the above.

For claim 24, since Baron et al. disclose zeolite (col. 3, line 7), it should display a stable cage-like structure because it is the same zeolite claimed by applicants.

For claim 25, Baron et al. are silent about an ion exchange capacity of about 30 meq/100g dry weight or 40 meq/100g dry weight. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the ion exchange agent of Baron et al. with a capacity of about 30 meq/100g dry weight or 40 meq/100g dry weight, since it has been held that where routine testing and general experimental conditions are present, discovering the optimum or workable ranges until the desired effect (more potent) is achieved involves only routine skill in the art. In re Aller, 105 USPQ 233.


3. **Claim 20** is rejected under 35 U.S.C. 103(a) as being unpatentable over Baron et al. (US 5081791) in view of Clausen (WO 91/08662 on form PTO-1449). Clausen teaches a substrate containing similar ingredients as that of Baron et al. and the substrate is used as a growing block (page 5, line 10). It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ the substrate of Baron et al. as a growing block as taught by Clausen so that the substrate are in bound form which makes it easier to handle.

Art Unit: 3643

4. **Claims 23 & 27** are rejected under 35 U.S.C. 103(a) as being unpatentable over Baron et al. (US 5081791) in view of Schnuda (US 5368626). Baron et al. are silent about peat. Schnuda teaches a growth medium or substrate in which he employs peat together with mineral wool in the medium to provide a higher water retention medium (col. 1, lines 62-68). It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ peat as taught by Schnuda in the substrate of Baron et al. in order to increase water retention in the substrate.

5. The following prior arts are made of record to provide the best available relevant examples of a substrate with mineral wool and other organic substances: 4927455, 5099605, 4241537, 5836107, 6183531, 4559074, 6074988, DE 4103597 A, SU 1526612 A.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Son T. Nguyen whose telephone number is (703) 305-0765. The examiner can normally be reached on Monday - Friday from 9:00 a.m. to 5:00 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Poon, can be reached at (703) 308-2574. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

  
Son T. Nguyen  
Patent Examiner, GAU 3643  
April 21, 2003